

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Attorney Docket No. 7540.10

In re Application for Reissue  
Of U.S. Patent No. 6,032,128

James Morrison, et al.

Art Unit: Unassigned

Serial No.: Unassigned

Examiner: Unassigned

Filed:

FEB 27 2002

For: **METHOD AND APPARATUS FOR DETECTING ITEM PLACEMENT AND  
ITEM REMOVAL DURING OPERATION OF A SELF-SERVICE CHECKOUT  
TERMINAL**

Asst. Commissioner for Patents

Washington, D. C. 20231

Attn: Box REISSUE

**AMENDMENT**

Sir:

Please enter the following Amendment:

**IN THE CLAIMS**

Please add new claims 22-56 as follows:

Clean copy of new claims

22. A method of providing security during operation of a retail self-service checkout terminal, comprising the steps of:

creating a transaction level weight database during a checkout procedure which includes records corresponding to input items entered into the terminal during a checkout procedure, the records including input weight values corresponding to the weights of the input items;

retrieving the input weight value from the transaction level weight database in response to a voiding of the entry of the corresponding input item;

detecting a removal weight of an input item removed from a weight scale, and generating a removal weight value in response thereto; and

generating a wrong-item-removed control signal if the retrieved input weight value does not match the removal weight value for the removed input item.

23. The method of claim 22, further comprising the steps of:

updating an electronic log value in response to generation of the wrong-item-removed control signal; and

comparing the electronic log value to a log threshold and generating a personnel signal in response thereto.

24. The method of claim 22, wherein:

the terminal includes a weight scale in a post-scan area,  
and

the detection step includes the step of detecting the weight of the removed item with the weight scale in the post-scan area and generating the removal weight value in response thereto.

25. The method of claim 22, further comprising the step of:

generating a correct-item-removed control signal if the retrieved input weight value matches the removal weight value for the removed input item.

26. The method of claim 22, further comprising the step of:

generating a personnel control signal in response to generation of the wrong-item-removed control signal.

27. The method of claim 26, further comprising the step of:

suspending operation of the terminal in response to generation of the personnel control signal.

28. The method of claim 24, wherein the terminal further has a second scale positioned in a pre-scan area associated with the terminal, further comprising the steps of:

after the removal weight value is generated, detecting the weight of an item placed in the second scale and generating a return weight value in response thereto; and

generating a wrong-item-returned control signal if the return weight value does not match the removal weight value for the removed input item.

29. A method of providing security during operation of a retail self-service checkout terminal, with the terminal having an input weight scale, comprising the steps of:

storing an identification code associated with an input item in a memory in response to entry of the input item into the terminal;

detecting the weight of the input item with the input weight scale and storing an input weight value associated with the weight of the input item in the memory in response thereto;

retrieving the stored input weight value in response to voiding of the entry of the input item;

detecting the weight of an item removed from the input weight scale and generating a removal weight value associated with the weight of the removed item in response thereto; and

generating a wrong-item-removed control signal if the retrieved input weight value does not match the removal weight value for the removed item.

30. The method of claim 29, further comprising the step of:

updating an electronic log value in response to generation of the wrong-item-removed control signal.

31. The method of claim 20, further comprising the step of:

comparing the electronic log value to a log threshold and generating a personnel signal in response thereto.

32. The method of claim 29, further comprising the step of:

generating a correct-item-removed control signal if the retrieved input weight value matches the removal weight value for the removed item.

33. The method of claim 29, further comprising the step of:

generating a personnel control signal in response to generation of the wrong-item-removed control signal.

34. The method of claim 33, further comprising the step of:

suspending operation of the terminal in response to generation of the personnel control signal.

35. The method of claim 29, wherein the terminal further has a second weight scale, further comprising the steps of:

after the removal weight value is generated, detecting the weight of an item placed in the second weight scale and generating a return weight value in response thereto; and

generating a wrong-item-retained control signal if the return weight value does not match the removal weight value for the removed input item.

36. The method of claim 29, wherein:

the terminal includes a bagwell having a grocery container therein,

the input weight scale is configured to detect the weight of the grocery container and any items located therein,

the step of detecting the weight of the input item includes the step of detecting the weight of the input item when the input item is located within the grocery container, and

the step of detecting the weight of the removal item includes the step of detecting the weight of the removed item when the removal item is removed from the grocery container.

37. A retail self-service checkout terminal, comprising:

a memory that stores a transaction level database including an identification code associated with an input item in response to entry of the input item into the terminal;

an input weight scale that detects the weight of said input item enabling an associated input weight value to be generated and stored in said transaction level database;

a bagwell weight scale that detects a removal weight associated with removing said input item from the bagwell weight scale, enabling an associated removal weight value to be generated; and

a processing unit that retrieves said input weight value from the transaction level database, when voiding the entry of said input item, and generates a wrong-item-removed control

signal if said retrieved input weight value does not match said removal weight value.

38. The checkout terminal of claim 37 in which the processing unit updates an electronic log value in response to generation of said wrong-item-removed control signal, and generating a personnel control signal in response to comparing said electronic log value to a log threshold.

39. The checkout terminal of claim 37 in which the processing unit generates a correct-item-removed control signal if said retrieved input weight value matches said removal weight value.

40. The checkout terminal of claim 37 in which the processing unit generates a personnel control signal in response to generation of said wrong-item-removed control signal, and halts operation of said terminal in connection with said personnel control signal being generated.

41. The checkout terminal of claim 37, further comprising:

a pre-scan area weight scale that detects the weight of an item placed in the pre-scan area weight scale, after



generation of said removal weight value, enabling generation of a return weight value in response thereto,

wherein the processing unit generates a wrong-item-returned control signal if said return weight value does not match said removal weight value, and

wherein (1) said input weight scale is positioned in a post-scan area associated with said terminal, and (2) said pre-scan area weight scale is positioned in a pre-scan area for said terminal.

42. The checkout terminal of claim 37, further comprising:

a bagwell having a grocery container therein, wherein said bagwell weight scale is configured to detect the weight of said grocery container and any items located therein;

wherein said bagwell weight scale detects the weight of said input item when said input item is located within said grocery container; and

wherein said bagwell weight scale enables generation of said removal weight value when said input item is removed from said grocery container.

43. A method of providing security during operation of a retail self-service checkout terminal, comprising the steps of:

providing for data entry for input items for purchase in a retail transaction;

providing for retrieval of a stored weight value for one of the input items, where the retrieval of the stored weight value is in response to an entry of the one of the input items being voided;

providing for detection of a removal weight of an item removed from a weight scale, and for generating a corresponding removal weight value in response to the detection; and

providing for generating a wrong-item-removed control signal if the retrieved stored weight value does not match the removal weight value for the removed item.

44. The method of claim 43 further comprising a step of providing a message instructing removal from the weight scale of an input item for which an entry is being voided.

45. The method of claim 43 in which the weight scale is positioned to determine the combined weight of input items placed in two or more open grocery bags.

46. The method of claim 45 in which the open grocery bags are secured to allow the input items to be selectively loaded into the grocery bags in a post-scan area.

47. The method of claim 45 in which the open grocery bags are secured along with a number of unopened grocery bags in the post-scan area.

48. The method of claim 45 further comprising a step of generating a bags removed control signal if all input items are removed from the weight scale.

49. The method of claim 43 further comprising a step of providing a message instructing removal from the weight scale of an input item for which an entry is being voided, which message is provided if the input item is not removed from the weight scale within a predetermined period of time.

50. The method of claim 43 further comprising a step of providing a message re-instructing removal from the weight scale of an input item for which an entry is being voided, which message is provided if the input item is not removed from the weight scale within a predetermined period of time.

51. The method of claim 43 further comprising a step of providing a message instructing removal from the weight scale of all input items, which message is generated if payment has been tendered and all associated input items are not removed from the weight scale within a predetermined time period.

52. The method of claim 43 further comprising a step of providing a message re- instructing removal from the weight scale of all input items, which message is generated if payment has been tendered and all associated input items are not removed from the weight scale within a predetermined time period.

53. The method of claim 43 further comprising a step of adding a record to a transaction level database in response to detection of a input item being placed on the weight scale, said record including a location code for the input item placed on the weight scale.

54. The method of claim 53 in which the wrong-item-removed control signal is generated if the transaction level database includes a record for the input item being voided and

the retrieved stored weight value does not match the removal weight value for the removed item.

55. The method of claim 54 in which a user may opt not to place an entered input item onto the weight scale.

56. The method of claim 55 in which a detection control signal is generated and the transaction level database is updated if the entered input item is placed onto the weight scale by a user.

**REMARKS**

This Amendment adds new claims to the present Reissue  
Application of U.S. Patent No. 6,032,128.

Respectfully submitted,



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FEB 25 2002

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**STATEMENT OF STATUS/SUPPORT FOR CHANGES  
TO CLAIMS UNDER 37 CFR §1.173(c)**

Sir:

Applicants respectfully request that this Statement of Status/Support for claim changes be entered prior to examination of the above-identified application.

**CLAIM STATUS**

Original claims 1-21 are unchanged.

Claims 22-56 have been added. New claims 22-60 find support as follows:

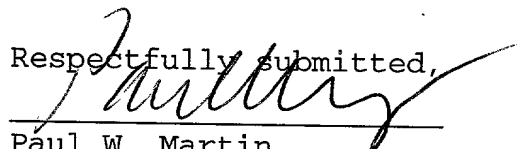
<u>Claim</u>	<u>Specification Support</u>
22	Col 5, lines 18-26; Col 10, lines 47-66; Col 26, lines 18-42; Col 27, lines 22-45; claim 1.
23	Col 29, lines 10-34; claim 2.
24	Col 7, lines 46-57; Col 27, lines 21-44; claim 3.
25	Col 27, lines 21-44; claim 4.
26	Fig 6B; Col 29, lines 35-42; Col 33, line 60 thru Col 34, line 10; claim 5.
27	Col 37, lines 24-31; claim 6.
28	Col 28, lines 8-31; Col 32, line 65 thru Col 33, line 8; claim 7.
29	Col 5, lines 18-26; Col 10, lines 47-66; Col 26, lines 18-42; Col 27, lines 22-45; claim 8.
30	Col 29, lines 10-34; claim 9.
31	Col 29, lines 10-34; claim 10.
32	Col 27, lines 21-44; claim 11.



- 33 Fig. 6B; Col 29, lines 35-42; col. 33, line 60 thru  
Col 34, line 10; claim 12.
- 34 Col 37, lines 24-31; claim 13.
- 35 Col. 28, lines 8-31; Col 32, line 65 thru Col 33,  
line 8; claim 14.
- 36 Col. 6, lines 9-21; Col 7, lines 46-56; claim 15.
- 37 Col. 5, lines 18-26; Col 26, lines 18-42; Col. 27,  
lines 22-45; claim 16.
- 38 Fig 6B; Col 29, lines 35-42; Col 33, line 60 thru  
Col 34, line 10; Col 37, lines 24-31; claim 17.
- 39 Col 27, lines 21-44; claim 18.
- 40 Fig 6B; Col 29, lines 35-42; Col 33, line 60 thru  
Col 34, line 10; Col 37, lines 24-31; claim 19.
- 41 Col 28, lines 8-31; Col 32, line 65 thru Col 33,  
line 8; claim 20.
- 42 Col. 6, lines 9-21; Col. 7, lines 46-57; Col 8, line  
63 thru Col. 9, line 5; claim 21.
- 43 Col 5, lines 18-26; Col 26, lines 18-42; Col 27,  
lines 22-45.
- 44 Col 26, lines 29-41.

- 45 Col 7, line 46 thru Col 8, line 7.
- 46 Col 6, lines 9-21.
- 47 Col 6, lines 9-21.
- 48 Col 38, lines 34-36.
- 49 Col 26, lines 29-41; Col 29, lines 57-67; Col 34,  
lines 54-62.
- 50 Col 29, lines 57-67; Col 34, lines 54-62.
- 51 Col 37, line 53 thru Col 38, line 60, e.g., Col 38,  
lines 53-58.
- 52 Col 37, line 53 thru Col 38, line 60, e.g., Col 38,  
lines 58-60.
- 53 Col 13, line 47 thru Col 14, line 3.
- 54 Col 27, lines 21-45.
- 55 Col 13, lines 28-53.
- 56 Col 13, lines 47-56.

Respectfully submitted,

  
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